

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

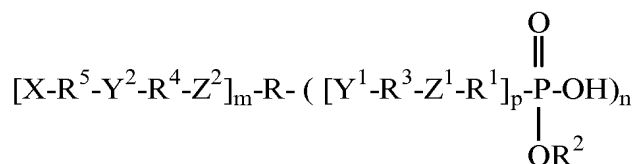
1. (currently amended) A composition comprising an acid having protein and calcium-precipitating properties and an organic polymer which has carboxyl and/or hydroxyl groups, said composition having a pH value in the range of from 1 to 4.

2. (previously presented) Composition according to claim 1, wherein the composition contains an acid which has a solubility of 0.5 to 20 wt.-% in water or in a mixture of 50 wt.-% water and 50 wt.-% ethanol.

3. (Canceled)

4. (previously presented) Composition according to claim 1, wherein the acid is a carboxylic acid, sulphonic acid and/or phosphonic acid.

5. (previously presented) Composition according to claim 4, wherein the phosphonic acid has a formula



in which

n is 1, 2, 3 or 4,

m is 0, 1 or 2,

p is 0 or 1,

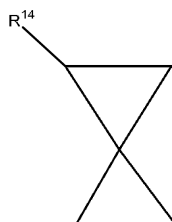
R is a straight-chained or branched aliphatic hydrocarbon radical with 1 to 12 carbon atoms or an aromatic hydrocarbon radical with 6 to 12 carbon atoms or an aliphatic/aromatic hydrocarbon radical with 7 to 16 carbon atoms, which can be substituted by OH, NH₂ and/or COOR⁶,

R¹ is a C₁ to C₁₂ alkylene, C₄ to C₁₂ cycloalkylene, C₆ to C₁₂ arylene or C₇ to C₁₆ alkylenearylene radical, which can be substituted by OH, NH₂ and/or COOR⁶, or is absent,

R² is H, a C₁ to C₆ alkyl or a phenyl radical,

R^3, R^4 each mean, independently of each other, a C_1 to C_{12} alkylene, C_6 to C_{12} arylene or C_7 to C_{16} alkylenearylene radical, which can be substituted by methyl, phenyl or fluorine, or are absent,

R^5 is $-\text{CH}=\text{CR}^{13}-$, a prop-1-ene-1, 3-diyl, C_1 to C_6 alkenylene, C_3 to C_9 cycloalkylene, C_1 to C_6 alkylene or phenylene radical or a group of formula



R^6 is H, a C_1 to C_6 alkyl or a phenyl radical,

Z^1, Z^2 each mean, independently of each other, CO-O , CO-NR^7 , O-CO-NH , O , NH , S or are absent,

Y^1, Y^2 each mean, independently of each other, O , CO-O , CO-NR^8 , O-CO-NH or are absent,

R^7, R^8 each mean, independently of each other, H, or a C_1 to C_6 alkyl radical,

X is H, CN , $\text{N(R}^9)_2$, OR^{10} , COOR^{11} or CONR_2^{12} ,

$R^9, R^{10}, R^{11}, R^{12}$ each mean, independently of each other, H, a C_1 to C_{10} alkyl or a phenyl radical,

R^{13} is H or a methyl radical,

R^{14} is H or a C_1 to C_{10} alkyl, vinyl or phenyl radical.

6. (previously presented) Composition according to claim 5, wherein

n is 1 or 2 and/or

m is 1 and/or

p is 0 and/or

R is an aliphatic straight-chained or branched mono- to pentavalent alkane radical with 1 to 7 carbon atoms, an aromatic hydrocarbon radical with 6 carbon atoms or an aliphatic/aromatic hydrocarbon radical with 8 carbon atoms and/or

R^1 is a methylene or ethylene radical or is absent and/or

R^2 is H, a methyl or ethyl radical and/or

- R^3, R^4 each mean, independently of each other, a methylene, ethylene, trimethylene, p-phenylene, ethylidene, 1-methylene ethane-1,2-diyl radical or are absent and/or
- R^5 is a methylene, ethylene, trimethylene, ethane-1, 2-diyl, methylethylene, prop-1-ene-1, 3-diyl, or a cyclopropylidene radical monosubstituted in 2 position or is absent and/or
- R^6 is H and/or
- Z^1, Z^2 each mean, independently of each other, CO-O, O-CO-NH or O or are absent and/or
- Y^1, Y^2 each mean, independently of each other, O, CO-O or CO-NR⁸ or are absent and/or
- R^7, R^8 each mean, independently of each other, H or a methyl or ethyl radical and/or
- X is H, CN, COOR¹¹ or CONR₂¹² and/or
- $R^9, R^{10}, R^{11}, R^{12}$ each mean, independently of each other, H or a methyl, ethyl or phenyl radical and/or
- R^{13} is H or a methyl radical,
- R^{14} is H or a vinyl or phenyl radical.
7. (previously presented) Composition according to claim 5, wherein
- n is 1,
- m is 1,
- p is 0,
- R is a C₁ to C₃ alkylene or phenylene radical,
- R^2 is H,
- R^4 is a branched or straight-chained C₁ to C₆ alkylene radical which can be substituted by 1 to 2 fluorine atoms and/or 1 phenyl radical or is absent,
- R^5 is a 1-methylene ethane-1, 2-diyl radical,
- Z^2 is absent,
- Y^2 is O or is absent,
- X is COOR¹¹ and
- R^{11} is H or a C₁ to C₅ alkyl or phenyl radical.
8. (previously presented) Composition according to claim 5, wherein
- n is 2,

- m is 2,
p is 1,
R is a quadrivalent aliphatic, aromatic, or aliphatic-aromatic hydrocarbon radical with 2 to 12 carbon atoms,
 R^1 is absent,
 R^2 is H,
 R^3 is a C_1 to C_3 alkylene or phenylene radical or is absent,
 R^4 is a branched or straight-chained C_1 to C_6 alkylene radical which can be substituted by 1 to 2 fluorine atoms and/or 1 phenyl radical or is absent,
 R^5 is a 1-methylene ethane-1, 2-diyl radical,
 Z^1, Z^2 are absent,
 Y^1 is absent,
 Y^2 is O or is absent,
X is $COOR^{11}$ and
 R^{11} is H or a C_1 to C_5 alkyl or phenyl radical.

9. (previously presented) Composition according to claim 4, wherein the carboxylic acid is maleic acid and/or trichloroacetic acid.

10. (previously presented) Composition according to claim 4, wherein the sulphonic acid is sulphasalicylic acid (2-hydroxy-5-sulphobenzoic acid).

11. (previously presented) Composition according to claim 1, containing from 1 to 4 different acids.

12. (previously presented) Composition according to claim 1, wherein the polymer is a polysaccharide, a polyethylene glycol, a polyacrylic acid, a polyacrylamide, a polyvinylpyrrolidone or a mixture thereof.

13. (previously presented) Composition according to claim 12, wherein the polymer is a mixture of polyethylene glycol dimethacrylate and polyacrylic acid.

14. (previously presented) Composition according to claim 1, further containing fluoride ions.

15. (previously presented) Composition according to claim 1, further containing a potassium ion-releasing compound.

16. (previously presented) Composition according to claim 1, further containing a film-forming component.

17. (previously presented) Composition according to claim 16, wherein the film-forming component is hydroxypropyl cellulose.

18. (previously presented) Composition according to claim 1, containing

0.5 to 40 wt.-%	phosphonic acid and/or
1.0 to 40 wt.-%	carboxyl and/or hydroxyl-group-containing polymer and/or
0.5 to 30 wt.-%	of a film-forming component and/or
0.1 to 1.0 wt.-%	fluoride ions and/or
0.1 to 10 wt.-%	potassium ions and
0 to 97.8 wt.-%	solvent.

19. (previously presented) Composition according to claim 18, further containing from 0.1 to 1.0 wt.-% flavourings.

20. (previously presented) Composition according to claim 18, wherein the solvent is a mixture of ethanol and water.

21. (previously presented) Composition according to claim 18, containing

1 to 5 wt.-%	of at least one phosphonic acid,
3 to 7 wt.-%	polyacrylic acid,
15 to 25 wt.-%	polyethylene glycol dimethacrylate,
3 to 7 wt.-%	hydroxypropyl cellulose,
0.1 to 1.0 wt.-%	potassium fluoride,
0.05 to 0.2 wt.-%	flavouring and
53.8 to 76.9 wt.-%	ethanol/water mixture (approx. 50 wt.-%).

22. (Original) Kit containing an acid and in spatially separated form thereof an organic, carboxyl and/or hydroxyl-group-containing polymer.
23. (previously presented) Kit according to claim 22, wherein the acid is applied to a brush.
24. (previously presented) Kit according to claim 22, containing a solution of the polymer, the composition of which is measured such that, when the solution is combined with the acid of the kit, a composition containing
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| 0.5 to 40 wt.-% | phosphonic acid and/or |
| 1.0 to 40 wt.-% | carboxyl and/or hydroxyl-group-containing polymer and/or |
| 0.5 to 30 wt.-% | of a film-forming component and/or |
| 0.1 to 1.0 wt.-% | fluoride ions and/or |
| 0.1 to 10 wt.-% | potassium ions and |
| 0 to 97.8 wt.-% | solvent |
- is obtained.
25. (previously presented) Kit according to claim 22, wherein the acid and polymer are housed in different chambers of a double-chambered vessel.
26. (previously presented) A method for the precipitation of protein comprising combining the composition of claim 1 with a protein solution.
27. (previously presented) A method for the desensitization of teeth comprising applying the composition of claim 1 to a tooth.
28. (Canceled).